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## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### **Prospective Grant of Exclusive License:** Electron Paramagnetic Resonance Devices and Systems for Oximetry

**AGENCY:** National Institutes of Health, Public Health Service, HHS

**ACTION:** Notice

**SUMMARY:** This is notice, in accordance with 35 U.S.C. 209(c)(1) and 37 CFR 404.7(a)(1)(i), that the National Institutes of Health (NIH), Department of Health and Human Services (HHS), is contemplating the grant of an exclusive worldwide license to practice the invention embodied in: HHS Ref. No. E-175-1995/0 and /1;

Patent/Application Number	Territory	Filing Date	Status
5,678,548	US	July 20, 1995	Issued
5,828,216	US	August 19, 1996	Issued
5,865,146	US	July 29, 1997	Issued
PCT/US1996/11879	WIPO	July 18, 1996	Expired

and HHS Ref. No. E-250-2008/0;

Patent/Application Number	Territory	Filing Date	Status
61/200,579	US	November 29, 2008	Expired
PCT/US2009/65956	WIPO	November 25, 2009	Expired
13/131,165	US	May 25, 2011	Pending
09829806.0	EP	November 25, 2009	Pending

to Resonance Research, Inc., a company incorporated under the laws of the Commonwealth of Massachusetts having its headquarters in Billerica, Massachusetts. The United States of America is the assignee of the rights of the above inventions. The contemplated exclusive license may be

granted in a field of use limited to electron paramagnetic resonance devices and systems for oximetry.

**DATE:** Only written comments and/or applications for a license received by the NIH Office of Technology Transfer on or before [Insert date 15 days from date of publication of notice in the FEDERAL REGISTER] will be considered.

**ADDRESS:** Requests for a copy of the patent application, inquiries, comments and other materials relating to the contemplated license should be directed to: Michael A. Shmilovich, Esq., Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, Rockville, MD 20852-3804; Telephone: (301) 435-5019; Facsimile: (301) 402-0220; E-mail: [shmilovm@mail.nih.gov](mailto:shmilovm@mail.nih.gov). A signed confidentiality nondisclosure agreement will be required to receive copies of any patent applications that have not been published by the United States Patent and Trademark Office or the World Intellectual Property Organization.

**SUPPLEMENTARY INFORMATION:** The patents and patent applications intended for licensure disclose or cover devices and systems for *in vivo* quantitative oximetry using low frequency time-domain EPR imaging in the frequency range of 250-300 MHz. The systems developed use a time-domain spectroscopic EPR imaging approach that is a unique combination of: (1) multi-gradient Single Point Imaging involving global phase encoding and (2) conventional  $90^\circ$ - $\tau$ - $180^\circ$  Spin-Echo pulse sequence well-known in MRI where the images are obtained by the filtered back-projection after FT of the echoes collected under frequency-encoding gradients. The combination approach of single point imaging with the spin-echo signal detection procedure to take advantage of  $T_2$  (and not  $T_2^*$ ) dependent contrast and the enhanced spatial resolution associated with the constant-time pure phase-encoding approach. This approach has become

feasible because of the availability of non-toxic water-soluble trityl and deuterated trityl based spin probes which have reasonable  $T_1$  and  $T_2$  in the range 5-10  $\mu$ s.

The prospective exclusive license will be royalty bearing and will comply with the terms and conditions of 35 U.S.C. 209 and 37 CFR 404.7. The prospective exclusive license may be granted unless, within fifteen (15) days from the date of this published notice, NIH receives written evidence and argument that establishes that the grant of the license would not be consistent with the requirements of 35 U.S.C. 209 and 37 CFR 404.7.

Properly filed competing applications for a license filed in response to this notice will be treated as objections to the contemplated license. Comments and objections submitted in response to this notice will not be made available for public inspection, and, to the extent permitted by law, will not be released under the Freedom of Information Act, 5 U.S.C. 552.

October 25, 2011

Date

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Richard U. Rodriguez, M.B.A.  
Director  
Division of Technology Development and Transfer  
Office of Technology Transfer  
National Institutes of Health